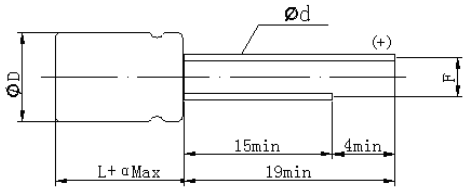
RN series

Low profile. Low ESR at high frequency RVnge & large permissible ripple current.

✧ Specifications

Items	Characteristics	
Operating Temp. Range	-55℃～+105℃	
Capacitance Range	10～560μF	
Capacitance Tolerance	M：±20%	
Rated Voltage Range	6.3V ～63V DC	
Dissipation Factor （at 120Hz,20℃）	Not to exceed the value specified	
Leakage Current	Not to exceed the value specified （μA, after 2 minutes)	
ESR（100K~300KHz）	Not to exceed the value specified	
Endurance 105℃，2000h， at rated voltage	Capacitance	Within ±20% of the value before test
	Leakage current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
Moisture Resistance Stored at 60℃，RH90～95%，2000h	Capacitance	Within ±20% of the value before test
	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

✧ Dimensions



Unit: mm

φDxL	ΦD+0.5max.	α	F	Φd±0.05
4x10	4.0	1.0	1.5	0.45
5x6	5.0	1.0	2.0	0.45
5x7	5.0	1.0	2.0	0.45
5x8	5.0	1.0	2.0	0.45
5x9	5.0	1.0	2.0	0.5
5.5x9	5.0	1.0	2.5	0.5
5.5x11	5.0	1.0	2.5	0.5
6.3x5	6.3	1.0	2.5	0.5
6.3x7	6.3	1.0	2.5	0.5
8x5	8.0	1.0	3.5	0.6

✧ Capacitance List

SIZE W.V（S.V）	4×10	5×6	5×7/5×8	5×9	5.5×9	5.5×11	6.3×5	6.3×7	8×5
6.3（7.2）	220 ~ 330μF	180 ~ 270μF	220 ~ 330μF	270 ~ 390μF	330 ~ 560μF	330 ~ 820μF	220 ~ 390μF	330 ~ 470μF	330 ~ 560μF
7.5（8.6）	220 ~ 330μF	180 ~ 270μF	220 ~ 330μF	270 ~ 390μF	330 ~ 560μF	330 ~ 680μF	220 ~ 390μF	330 ~ 470μF	330 ~ 560μF
10（11.2）	180 ~ 270μF	120 ~ 180μF	150 ~ 220μF	180 ~ 330μF	220 ~ 390μF	270 ~ 470μF	150 ~ 270μF	270 ~ 390μF	220 ~ 390μF
12（13.8）	150 ~ 220μF	100 ~ 150μF	120 ~ 220μF	150 ~ 330μF	180 ~ 330μF	220 ~ 470μF	120 ~ 220μF	220 ~ 330μF	180 ~ 330μF
16（18.4）	100 ~ 150μF	82 ~ 120μF	100 ~ 150μF	120 ~ 180μF	150 ~ 330μF	150 ~ 470μF	100 ~ 180μF	150 ~ 270μF	150 ~ 270μF
20（23）	82 ~ 120μF	56 ~ 100μF	68 ~ 120μF	82 ~ 120μF	120 ~ 270μF	120 ~ 220μF	82 ~ 120μF	120 ~ 180μF	100 ~ 180μF
25（27.5）	56 ~ 100μF	47 ~ 68μF	56 ~ 82μF	68 ~ 100μF	100 ~ 180μF	100 ~ 180μF	56~ 82μF	82 ~ 150μF	82 ~ 150μF
35（41）			22 ~ 56μF	47 ~ 68μF	56 ~ 100μF	68 ~ 120μF	39 ~ 68μF	68 ~ 100μF	56 ~ 100μF
50（57.5）								22 ~ 39μF	
63（72）								15 ~ 22μF	

✧ Characteristics List

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tg δ (120Hz,20℃)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦDxL(mm)	Part Number
6.3	220	300	0.08	20	2800	4x10	RN221M6R3B100□□
	220	300	0.08	20	2800	5x6	RN221M6R3C060□□
	270	340.2	0.08	15	3200	5x8	RN271M6R3C080□□
	330	415.8	0.08	15	3200	5x8	RN331M6R3C080□□
	330	415.8	0.08	12	3400	5x9	RN331M6R3C090□□
	330	415.8	0.08	25	2500	6.3x5	RN331M6R3E050□□
	330	415.8	0.08	12	3200	6.3x7	RN331M6R3E070□□
	390	491.4	0.08	12	3400	5x9	RN391M6R3C090□□
	470	592.2	0.08	12	3400	5x9/5.5x9	RN471M6R3C090□□
	470	592.2	0.08	12	3600	5.5x11	RN471M6R3C110□□
	470	592.2	0.08	12	3200	6.3x7	RN471M6R3E070□□
	470	592.2	0.08	20	2800	8x5	RN471M6R3F050□□
	820	1033.2	0.08	12	3600	5.5x11	RN821M6R3C110□□
7.5	220	330	0.08	20	2800	4x10	RN221M7R5B100□□
	220	330	0.08	20	2800	5x6	RN221M7R5C060□□
	270	405	0.08	15	3200	5x8	RN271M7R5C080□□
	330	495	0.08	25	2500	6.3x5	RN331M7R5E050□□
	390	585	0.08	12	3400	5x9	RN391M7R5C090□□
	470	705	0.08	12	3200	6.3x7	RN471M7R5E070□□
	500	750	0.08	12	3400	5.5x9	RN501M7R5C090□□
	560	840	0.08	12	3600	5.5x11	RN561M7R5C110□□
	560	840	0.08	20	2800	8x5	RN561M7R5F050□□
10	180	360	0.08	20	2800	5x6	RN181M010C060□□
	220	440	0.08	20	2800	4x10	RN221M010B110□□
	220	440	0.08	15	3200	5x8	RN221M010C080□□
	220	440	0.08	25	2500	6.3x5	RN221M010E050□□
	330	660	0.08	12	3400	5x9/5.5x9	RN331M010C090□□
	330	660	0.08	12	3600	5.5x11	RN331M010C110□□
	330	660	0.08	12	3200	6.3x7	RN331M010E070□□
	330	660	0.08	20	2800	8x5	RN331M010F050□□
12	150	360	0.08	20	2800	4x10	RN151M012B100□□
	150	360	0.08	20	2800	5x6	RN151M012C060□□
	220	528	0.08	15	3200	5x8	RN221M012C080□□
	220	528	0.08	25	2500	6.3x5	RN221M012E050□□
	330	792	0.08	12	3400	5x9/5.5x9	RN331M012C090□□
	330	792	0.08	12	3200	6.3x7	RN331M012E070□□
	330	792	0.08	20	2800	8x5	RN331M012F050□□
	470	1128	0.08	12	3600	5.5x11	RN471M012C110□□
16	100	320	0.10	20	2800	4x10	RN101M016B100□□
	100	320	0.10	20	2800	5x6	RN101M016C060□□
	100	320	0.10	15	3200	5x8	RN101M016C080□□
	100	320	0.10	25	2500	6.3x5	RN101M016E050□□
	180	576	0.10	12	3400	5x9/5.5x9	RN181M016C090□□
	270	864	0.10	12	3400	5.5x9	RN271M016C090□□
	270	864	0.10	12	3200	6.3x7	RN271M016E070□□
	270	864	0.10	25	2800	8x5	RN271M016F050□□
	330	1056	0.10	12	3600	5.5x11	RN331M016C110□□
	470	1504	0.10	12	3600	5.5x11	RN471M016C110□□

W.V. (V)	Capacitance (μF)	L.C. (μA,2min)	tg δ (120Hz,20℃)	ESR (mΩ,100kHz)	Rated Ripple Current(mA,r.m.s)	Size ΦDxL(mm)	Part Number
20	100	400	0.10	20	2800	4x10	RN101M020B100□□
	100	400	0.10	20	2800	5x6	RN101M020C060□□
	100	400	0.10	15	3200	5x8	RN101M020C080□□
	120	480	0.10	12	3400	5x9	RN121M020C090□□
	120	480	0.10	25	2500	6.3x5	RN121M020E050□□
	180	720	0.10	12	3200	6.3x7	RN181M020E070□□
	180	720	0.10	20	2800	8x5	RN181M020F050□□
	220	880	0.10	12	3400	5.5x9	RN221M020C090□□
	220	880	0.10	12	3600	5.5x11	RN221M020C110□□
25	56	300	0.10	25	2800	4x10	RN560M025B100□□
	56	300	0.10	25	2800	5x6	RN560M025C060□□
	82	410	0.10	20	3200	5x8	RN820M025C080□□
	82	410	0.10	30	2500	6.3x5	RN820M025E050□□
	100	500	0.10	18	3400	5x9/5.5x9	RN101M025C090□□
	100	500	0.10	18	3200	6.3x7	RN101M025E070□□
	150	750	0.10	18	3600	5.5x11	RN151M025C110□□
	150	750	0.10	25	2800	8x5	RN151M025F050□□
35	22	300	0.10	40	2900	5x8	RN220M035C080□□
	56	300	0.10	40	2100	6.3x5	RN560M035E050□□
	68	300	0.10	35	3000	5x9/5.5x9	RN680M035C090□□
	100	300	0.10	35	3200	5.5x11	RN101M035C110□□
	100	300	0.10	40	3000	6.3x7	RN101M035E070□□
	100	300	0.10	40	2600	8x5	RN101M035F050□□
50	22	300	0.10	40	2600	6.3x7	RN220M050E070□□
	33	300	0.10	40	2600	6.3x7	RN330M050E070□□
	39	300	0.10	40	2600	6.3x7	RN390M050E070□□
63	15	300	0.10	40	2600	6.3x7	RN150M063E070□□
	18	300	0.10	40	2600	6.3x7	RN180M063E070□□
	22	300	0.10	40	2600	6.3x7	RN220M050E070□□

✧ Frequency Coefficient for Ripple Current

Frequency	120Hz≤freq.<1KHz	1KHz≤freq.<10KHz	10KHz≤freq.<100KHz	100KHz≤freq.<300KHz
Coefficient	0.05	0.3	0.7	1

PolyCap Part Number System

1. POLYCAP Explanation of Part Number (**Radial** Type).

R	L	8	2	1	M	2	R	5	E	0	8	0	C	A
Series name		Rated capacitance			Capacitance tolerance			Rated voltage	Case diameter			Case length	Taping or forming of terminal code	

Example

- **RA** Series
- **RH** Series
- **RV** Series
- **RE** Series
- **RL** Series
- **RM** Series
- **RS** Series
- **RN** Series
- **RF** Series
- **RQ** Series
- **RU** Series
- **VS** Series
- **VN** Series
- **VA** Series

Rated Cap.(μF)	Code
4.7	4R7
10	100
33	330
100	101
820	821
1000	102
2700	272

Tol.%	Code
±20	M
±10	H
±5	Z

Rated Volt.(v)	Code
2.5	2R5
6.3	6R3
10	010
16	016
25	025
35	035
50	050
63	063
100	100
125	125
160	160
200	200

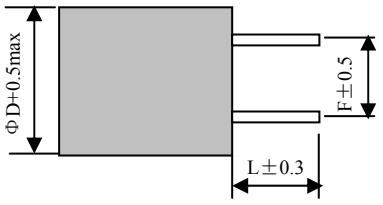
Dia (mm)	Code
4	B
5/5.5	C
6.3	E
8	F
10	G

Len. (mm)	Code
5	050
6	060
7	070
8	080
11	110
11.5	115
12.5	125
14	140
16	160
20	200

Taping or lead terminal wire process code.
None suffix for regular length lead type products

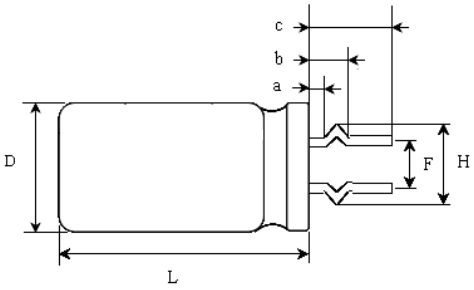
2. POLYCAP Radial lead terminal process

1) Specifications for lead terminal cutting



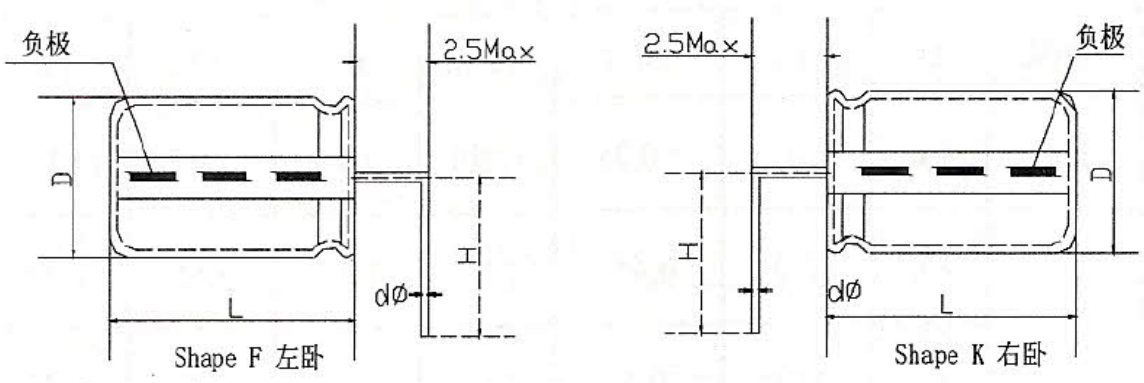
Shape A (lead cutting)

Lead terminal cutting code	Cutting size(L/mm)	Applicable case size(D/mm)
CI	2.2	
CA	2.5	
CJ	2.8	
CB	3.0	Φ4
CC	3.2	Φ5
CD	3.3	Φ5.5
CE	3.5	Φ6.3
CF	4.0	Φ8
CG	5.0	Φ10
CH	6.0	



Shape B (lead cutting and crimping)

lead cutting and crimping code	H±0.5	a±0.5	b±0.5	c±0.5
BA	4.5	1.0	4.0	7.5
BB	4.5	1.0	4.0	8.0
BC	4.5	1.0	4.0	9.5



Shape F、K (lead cutting and bending)

Shape F 左卧 code	Shape K 右卧 code	H±0.5
FA	KA	6.3
FB	KB	8.0
FC	KC	10.0

2) POLYCAP Specifications for Taping

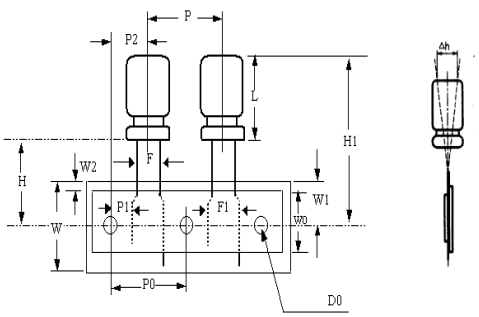


Fig-1(Φ5～Φ8)

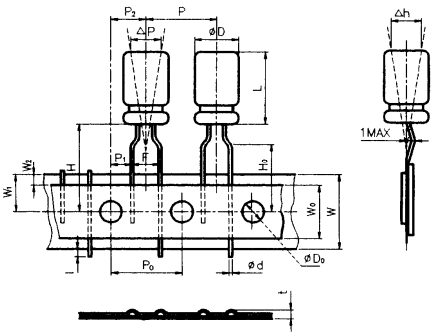


Fig-2(Φ5～Φ8)

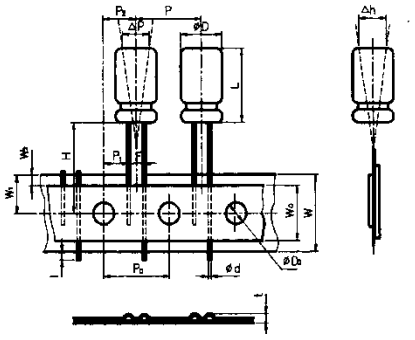


Fig-3(Φ10)

Code	D	L	d	P	P0	P1	F	W	W0	W1	W2	H	D0	△h	t
Tol.	±0.5	±1.0	±0.02	±1.0	±0.2	±0.7	±0.5	±0.5	Min	±0.5	Max	0.75 -0.5	±0.2	Max	±0.3
Item	4	7~9(+1)	0.5	12.7	12.7	4.6	2.2	18	11	9	1.5	18.5	4. 1	1	0.3
		10(+1)	0.45				1.5								
	5	5(+1)	0.45	12.7	12.7	4.6	2.0	18	11	9	1.5	18.5	4.1	1	0.3
		6-9(+1)	0.5				2.5								
	5.5	7-11(+1)	0.5	12.7	12.7	4.6	2.5	18	11	9	1.5	18.5	4.1	1	0.3
	6.3	5-7(+1)	0.5	12.7	12.7	4.6	2.5	18	11	9	1.5	18.5	4.1	1	0.6
		8(+1)	0.6				3.5								
		9-13(+1)	0.5				5.0								
		15(+1.5)	0.6												
	8	8-14(+1)	0.6	12.7	12.7	4.6	3.5	18	12	9	1.5	18.5	4.1	1	0.6
		16-20(+1.5)					5.0								
	10	12.5~14(+1)	0.6	12.7	12.7	3.85	5.0	18	12	9	1.5	18.5	4.1	1	0.6
		16-20(+1.5)													

Taping code	Taping size(F/mm)	Applicable case size(ΦD/mm)
TA	2.0	Φ5
TB	2.5	Φ5, Φ5.5,Φ6.3
TC	3.5	Φ6.3,Φ8
TD	5.0	Φ6.3,Φ8,Φ10
TR	Taping and Reel	